



GAIL FARBER, Director

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

"To Enrich Lives Through Effective and Caring Service"

900 SOUTH FREMONT AVENUE
ALHAMBRA, CALIFORNIA 91803-1331

<http://dpw.lacounty.gov>

ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1460
ALHAMBRA, CALIFORNIA 91802-1460

October 20, 2015

The Honorable Board of Supervisors
County of Los Angeles
383 Kenneth Hahn Hall of Administration
500 West Temple Street
Los Angeles, California 90012

Dear Supervisors:

ADOPTED

BOARD OF SUPERVISORS
COUNTY OF LOS ANGELES

31 October 20, 2015


PATRICK OZAWA
ACTING EXECUTIVE OFFICER

LOS ANGELES COUNTY WATERWORKS DISTRICT NO. 40, ANTELOPE VALLEY APPROVAL OF WATER SUPPLY ASSESSMENT FOR AVANTI NORTH (SUPERVISORIAL DISTRICT 5) (3 VOTES)

SUBJECT

This action is to approve the Water Supply Assessment for the Avanti North Project in the City of Lancaster and authorize the Director of Public Works or her designee to sign the Notice of Determination and submit said notice and the Water Supply Assessment to the City of Lancaster for the Avanti North Project's environmental documentation.

IT IS RECOMMENDED THAT THE BOARD ACTING AS THE GOVERNING BODY OF THE LOS ANGELES COUNTY WATERWORKS DISTRICT NO. 40, ANTELOPE VALLEY:

1. Find that the action set forth in this Board letter is not a project pursuant to the California Environmental Quality Act.
2. Approve the Water Supply Assessment for the Avanti North Project in the City of Lancaster.
3. Authorize the Director of Public Works or her designee to sign the Notice of Determination and submit said notice and the Water Supply Assessment to the City of Lancaster for the Avanti North Project's environmental documentation.

PURPOSE/JUSTIFICATION OF RECOMMENDED ACTION

The purpose of these actions is to approve the enclosed Water Supply Assessment (Enclosure A) required by California Water Code §10910, et seq., and sign the enclosed Notice of Determination

(Enclosure B) showing that although the Los Angeles County Waterworks District No. 40, Antelope Valley, currently has insufficient water supplies for the proposed developments, the Avanti North Project intends to purchase sufficient water for the needs of the Avanti North Project with Nickel Water conveyed through the State Water Project to the District. The Nickel Water is a right established by a contract between the Nickel Family, LLC, and the Kern County Water Agency (KCWA), wherein KCWA guarantees delivery of 10,000 acre-feet of water per year from any sources available to KCWA to the Nickel Family, LLC, at the State Water Project aqueduct in perpetuity. The Avanti North Project has acquired a long-term contract with the Nickel Family, LLC, for 1,700 acre-feet per year of this supply.

Implementation of Strategic Plan Goals

The Countywide Strategic Plan directs the provision of Community Support and Responsiveness (Goal 2) by ensuring a reliable supply of water for the District's customers.

FISCAL IMPACT/FINANCING

There will be no impact on the County General Fund.

FACTS AND PROVISIONS/LEGAL REQUIREMENTS

The California Water Code §10910, et seq., requires the District to prepare an assessment for the projects in the District's service area subject to the California Environmental Quality Act (CEQA) that involve residential development of more than 500 dwelling units, commercial development of more than 250,000 square feet, or retail development of more than 500,000 square feet. The assessment must include a discussion with regard to whether the District's total projected water supplies available during normal, single-dry, and multiple-dry water years during a 20-year projection will meet the projected water demand associated with the Avanti North Project, in addition to the District's existing and planned future water uses. Pursuant to California Water Code §10910(g)(1), the Board must approve the assessment at a regular or special meeting.

Based on the District's Urban Water Management Plan adopted by the Board on June 28, 2011, the assessment indicates that the District has the ability through the purchase of water entitlements to provide the needed water supply for this development under all conditions. The project intends to purchase sufficient reliable and permanent water entitlement for the project and convey that entitlement to the District through the Antelope Valley-East Kern Water Agency (AVEK). AVEK has agreed that the Nickel Water purchase is an entitlement, and the District's will serve letter is conditioned on AVEK's written agreement with the District that the project's purchase of Nickel Water supply is a permanent water supply, and the District has no responsibility in securing any water for the project now or anytime in the future.

The assessment for the project is a proposed development of approximately 237 acres located within the City of Lancaster in California. The project is bounded by Avenue K on the north, 62nd Street West and vacant land on the east, Avenue K-8 on the south, and 70th Street West to the west. The project consists of up to 758 single-family dwelling units and over 10 acres of park.

Therefore, the assessment for the Avanti North Project was prepared in accordance with the requirements of California Water Code §10910, et seq.

ENVIRONMENTAL DOCUMENTATION

The proposed action is mandated of the District to be submitted to the City of Lancaster by California Water Code §10910(g)(1) and, therefore, does not constitute a discretionary approval by the District that would be subject to CEQA. Pursuant to California Water Code §10911(b), the City of Lancaster, as the land-use authority responsible for approving the specific plan in question and the lead agency under CEQA for the Avanti North Project, is required to include the assessment provided by the District in the environmental impact report that the City is processing for the Avanti North Project.

IMPACT ON CURRENT SERVICES (OR PROJECTS)

There will be no negative impact on current County services or projects during the performance of these actions.

CONCLUSION

Please return one adopted copy of this letter to the Department of Public Works, Waterworks Division.

Respectfully submitted,

A handwritten signature in cursive script that reads "Gail Farber".

GAIL FARBER

Director

GF:AA:dvt

Enclosures

c: Chief Executive Office (Rochelle Goff)
County Counsel
Executive Office

Water Supply Assessment

Avanti North Lancaster, California

August 2015

Prepared For:

CV Communities
3121 Michelson Drive, Suite 150
Irvine, CA 92612

Prepared By:



Pacific Advanced Civil Engineering, Inc.
17520 Newhope Street, Suite 200
Fountain Valley, CA 92708
714-481-7300

Contact Person:

Mark Krebs, PE
Jacob Peterson, PE



PACE A322

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1 Purpose of Report

In order to address some of the uncertainty regarding water supply and provide for a more detailed understanding of water availability for individual projects, the California State Legislature adopted Senate Bill 610 in 2001 to require that water supply availability be documented early in the land use planning process. SB 610 is a measure that promotes more collaborative planning between local water suppliers and cities and counties. The statute requires that detailed information be presented regarding water availability.

1.1 Senate Bill 610

Under SB 610, a water supply assessment must be included in environmental documentation subject to the California Environmental Quality Act. Senate Bill 610 applies to a project if it is expected to include any of the following elements:

- (1) A proposed residential development of more than 500 dwelling units.
- (2) A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space.
- (3) A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space.
- (4) A proposed hotel or motel, or both, having more than 500 rooms.
- (5) A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area.
- (6) A mixed-use project that includes one or more of the projects specified in this subdivision.
- (7) A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project.

Avanti North contains more than 500 dwelling units; therefore, it qualifies as a project and requires a water supply assessment pursuant to §10912.(a)(1).

Water Code Section 10910, et seq, as amended by SB 610 in 2001, defines a “project” as any residential development of 500 or more dwelling units (or equivalently-large commercial development), and requires the water purveyor (the District) or the County itself to prepare a “Water Supply Assessment” prior to project approval. The Water Supply Assessment must be included in the environmental document addressing the potential environmental impacts of the project. In order for the project to be approved, the Water Supply Assessment must conclude that the supply of domestic water available to the development is adequate, and will continue to be adequate over the next 20 years during normal, dry, and multiple-dry years.

This Water Supply Assessment is produced for the Los Angeles County Waterworks Districts (LACWD) District 40 to meet the requirements of Senate Bill 610. In the 2010 Integrated Regional Urban Water Management Plan (UWMP) for the Antelope Valley, the District anticipates future development in Regions 4 and 34; Lancaster and Palmdale area. An updated UWMP is expected in the summer of 2016, but at this time the District has provided instruction to proceed with data found in the 2010 UWMP. The 2010 UWMP identifies a future water demand for the Lancaster Capital development, which has since been renamed to Avanti. Avanti consists of two developments: Avanti North and Avanti South. This Water Supply Assessment is only for the Avanti North development. Avanti South will be developed at a future date and as such will have its own separate Water Supply Assessment at that time. As detailed in *Section 4.1 – Nickel Contract Water*, the Avanti North developer has acquired via contract its own water supply such that its development will place no new demand for water on District 40 given that the new contractual supply will equal the anticipated water needs of the Avanti North project.

2 Project Description and Water Demand

Avanti North is a proposed development of approximately 237 acres located within the City of Lancaster, California. The project is bounded by Avenue K on the north, 62nd Street West and vacant land on the east, Avenue K-8 on the south, and 70th Street West to the west (Figure 1). Avanti North consists of 758 single family dwelling units and over 10 acres of park. The residential lot study for Avanti North is presented in Figure 2 and Table 4.

Water demand for the proposed development is calculated based on information provided in the 2010 Integrated Regional Urban Water management Plan for the Antelope Valley (UWMP). The UWMP identifies water use factors identified by land use type that, if utilized, will allow the District to meet the water demand reduction targets mandated by SB X707, or a 20% demand reduction by the year 2020. These water use factors are used to determine the water consumption based on the area of each land use type. After discussions with LACWD during recent water demand calculations for another local development site it was decided that the water use factors based on land use type should be used for estimating development water use. The Avanti North project includes two land use development types: single family residential and public areas (parks and detention basins). The water demand factors for these land use types can be found in Table 1 below.

Table 1: Water Use Factors in Acre-Feet per Acre by Land Use Type

Type	Single Family Res.	Multi Family Res.	Comm.	Heavy Industry	Light Industry	Mixed Use	Non-Urban Res.	Public Areas	Health
AF/acre	3.9	2.5	2.25	0.3	1.1	2.5	1.9	2.6	5

Note: Reproduction of Table 4-5: Water Use Factors in Acre-Feet per Acre by Land Use Type from 2010 Integrated Regional Urban Water Management Plan for the Antelope Valley

Total acreage of single family residential land use and public areas land use are used in conjunction with the listed water use factors to calculate the total water demand for Avanti North. The acreage for the single family residential is calculated in the following table.

Table 2: Single Family Residential Acreage for Avanti North

Planning Area	Number of Lots	Average Lot Area (sf)	Total Area (ac.)
A	151	6,394	22.2
B	172	7,406	29.2
C	142	7,879	25.7
D	156	9,616	34.4
E	137	10,356	32.6
Total	758		144.1

Yearly water demand for Avanti North is estimated using the factors previously described. Table 3 summarizes the data and provides a yearly water demand for the development.

Table 3: Yearly Water Demand Estimate for Avanti North

Land Use	Proposed Development	Demand Factor	Demand
Single Family	144.1 ac	3.9 AFY/ac	562 AFY
Park	10.44 ac	2.6 AFY/ac	27 AFY
Detention Basin	12.05 ac	2.6 AFY/ac	31 AFY
Total Demand			620 AFY

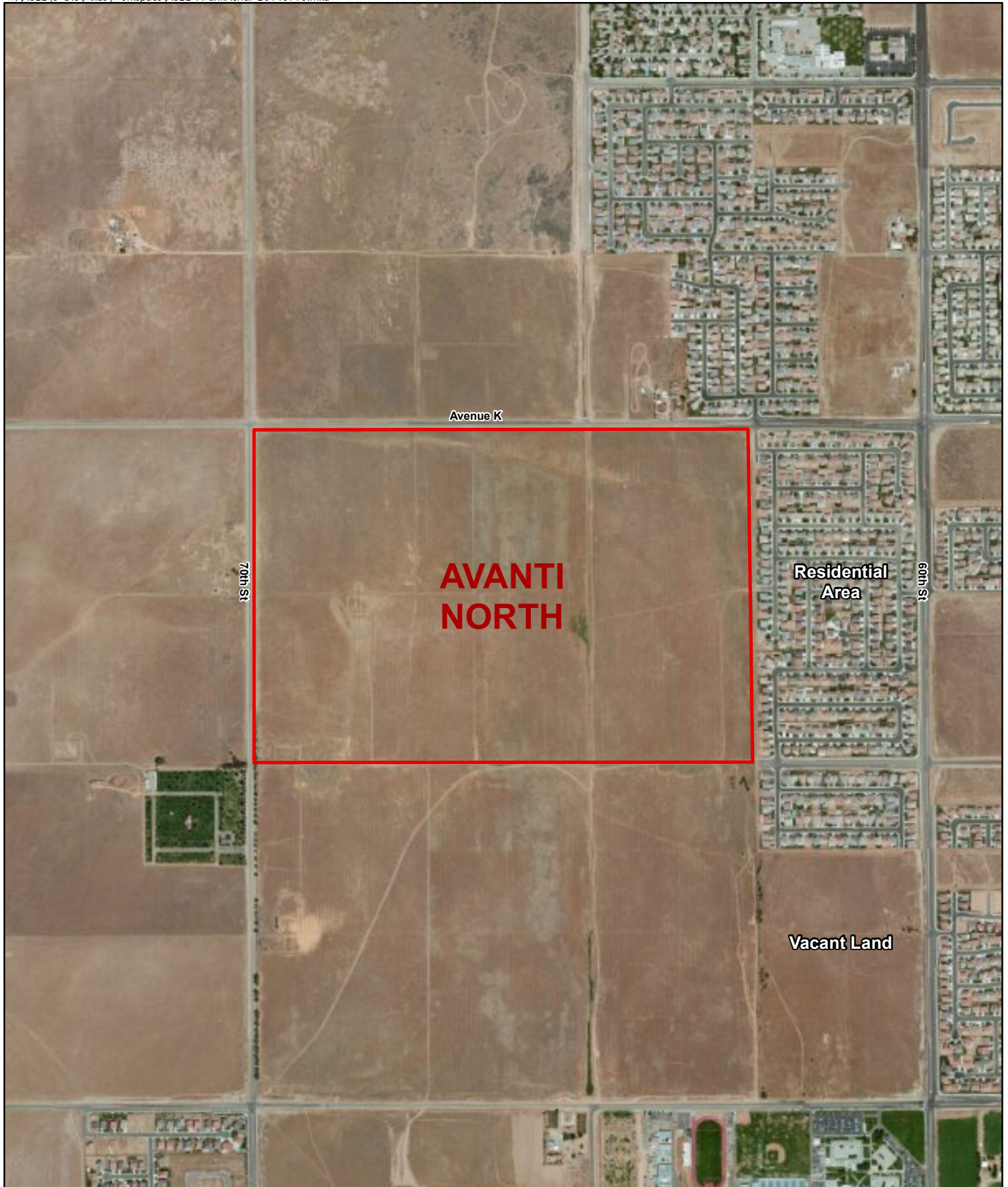




Figure 2: Avanti North Lot Study

Table 4: Residential Lot Study Summary for Avanti North

Planning Area	Total Area (ac.)	Percent (%)
Single- Family Residential	144.11	60.7
Park Sites	10.44	4.4
Detention Basins	12.05	5.1
Avenue "k"	4.73	2.0
70 th St. West	3.32	1.4
Avenue K-8	3.80	1.6
65 th St. West	5.21	2.2
Local Streets	53.71	22.6
Total	237.37	100.0

3 2010 Urban Water Management Plan (UWMP) Review

This Water Supply Assessment uses data from the 2010 Integrated Regional Urban Water Management Plan (UWMP) for the Antelope Valley. Based on a discussion with a District 40 representative, an update to the UWMP is not expected until the summer of 2016 and thus the data found in the 2010 UWMP will be the most pertinent.

3.1 Water Use

LACWD District 40 serves water to eight regions within the Antelope Valley. The communities of Lancaster and Palmdale are served by Regions 4 and 34. These regions include a large majority of the existing residential development within the District 40 service area. The complete breakdown by land use type of District 40's projected water demand can be found in Table 5 below.

Table 5: District 40 Projected Water Demand by Land Use Type

	2015 Demand	2020 Demand	2025 Demand	2030 Demand	2035 Demand
Single Family Residential	39,300	48,900	58,000	68,000	76,700
Multi-Family Residential	3,970	4,200	4,400	4,700	4,980
Commercial	5,600	9,860	11,860	13,260	15,630
Heavy Industry	100	200	300	500	600
Light Industry	1,200	3,200	5,100	6,450	8,790
Mixed Use	3,000	3,100	3,400	3,500	3,600
Non-Urban Residential	2,000	2,500	2,900	3,300	3,750
Public Areas	3,700	4,000	4,200	4,500	4,750
Healthcare	230	300	500	600	700
Open Space	-	-	-	-	-
Specific Plans	14,800	14,490	14,180	13,870	13,560
Total	74,500	88,490	102,580	116,420	130,800

Note: Data provided in 2010 Integrated Regional Urban Water Management Plan for Antelope Valley, Table 4-6: District No. 40 Demand per Land Use Type

3.2 Water Supply

LACWD District 40 currently purchases imported State Water Project water from the Antelope Valley East-Kern Water Agency (AVEK) and pumps groundwater from the Antelope Valley Groundwater Basin. In 2009, District 40 received 37% of its water supply from groundwater pumping, with the other 63% coming from imported State Water Project water. Using current imported water supply and allowable groundwater pumping rates, District 40 will be able to provide a total of 84,200 acre feet per year between the imported water supply and groundwater pumping.

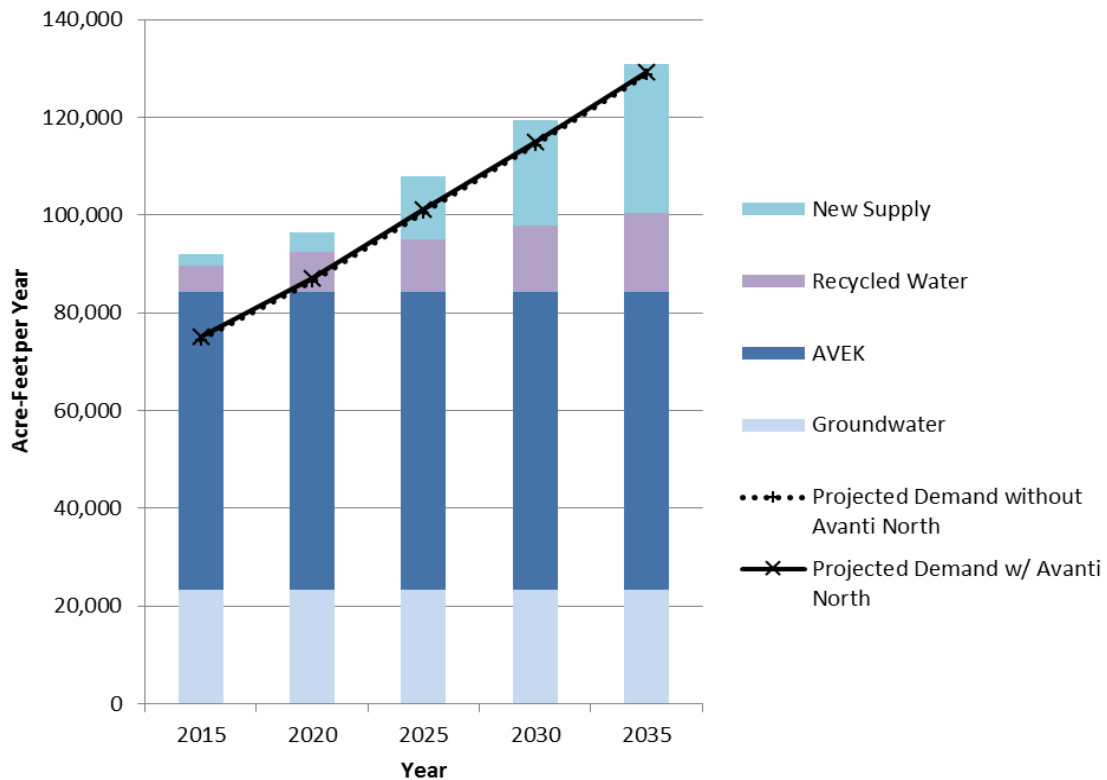
In order to meet projected water demand, District 40 has several programs planned to increase water supply. These programs are discussed in Section 3.3 of this report. Table 6 shows the projected water supplies based on source during normal years. It should be noted that the current drought has caused District 40 to receive a portion of their allotted normal year State Water Project water, forcing District 40 to rely more heavily on other water sources such as Groundwater Banking program and recycled water. These sources and their programs are discussed further in this section, and their supply quantities can be found in Table 8.

Table 6: District 40 Projected Water Supplies During Normal Water Year

Water Supply Sources	2015	2020	2025	2030	2035
Total District 40 Supply					
Groundwater	23,200	23,200	23,200	23,200	23,200
AVEK	61,000	61,000	61,000	61,000	61,000
Recycled Water	5,400	8,200	10,900	13,600	16,300
Groundwater Banking	0	0	0	0	0
Anticipated New Supply	2,300	4,100	12,900	21,600	30,300
Total	91,900	96,500	108,000	119,400	130,800

Note: Data provided in 2010 Integrated Regional Urban Water Management Plan for Antelope Valley, Table 2-9: Current and Planned Water Supplies (AF)

Figure 3 shows the projected water supply for District 40 along with water demands including and excluding Avanti North.



Note: Data in graph taken from Tables 3 and 6 of this report.

Figure 3: Yearly Water Supply and Demand

3.3 Response to Supply Deficiencies

The current drought in California has made water supply deficiencies a major concern for the state. The Governor has recently issued an Executive Order requiring a statewide reduction in water use of 25% in response to these supply deficiencies. In order to achieve this, each agency is assigned a mandated water reduction target. District 40's mandated water reduction target is 32%.

The fact that District 40 is located within an arid climate makes it highly susceptible to drought conditions, which exacerbate water shortages. In order to provide demands during short-term drought situations, District 40 implemented their most recent Phased Water Conservation Plan (PWCP) on June 8th, 2015. The PWCP is comprised of 10 phases with water conservation targets for each phase. The conservation rates and type of rationing are listed in Table 7.

Table 7: District 40 Phases of Action

Phase	I	II	III	IV	V	VI	VII	VIII	IX	X
Anticipated Shortage that Triggers Phase	-	10%	10% - 15%	15% - 20%	20% - 25%	25% - 30%	30% - 35%	35% - 40%	40% - 45%	45% - 50%
Conservation Target	-	90%	85%	80%	75%	70%	65%	60%	55%	50%
Type of Rationing (Voluntary or Mandatory)	V	M	M	M	M	M	M	M	M	M

Note: Information based on Los Angeles County Waterworks District 40 Phased Water Conservation Plan, implemented June 8th, 2015.

The 32% water reduction target recently set forth by the Governor would fall within Phase VII of the above action plan. For each phase of the PWCP varying methods of conservation will be required. Several of the methods of conservation are listed below:

- **Phase I** – Discretionary restrictions by the District Engineer, irrigation limited/prohibited, no new construction water meters, existing construction meters removed, "Will Serve" letters issued with condition of permanent metered service prohibited until severity of water condition reduced.
- **Phase II** – water used in excess of 90% conservation target subject to a surcharge
- **Phase III** – water used in excess of 85% conservation target subject to a surcharge
- **Phase IV** – water used in excess of 80% conservation target subject to a surcharge
- **Phase V** – water used in excess of 75% conservation target subject to a surcharge, irrigation shall be limited to every other day between 10:00 a.m. and 5:00 p.m.
- **Phase VI** – water used in excess of 70% conservation target subject to a surcharge
- **Phase VII** – water used in excess of 65% conservation target subject to a surcharge
- **Phase VIII** – water used in excess of 60% conservation target subject to a surcharge
- **Phase IX** – water used in excess of 55% conservation target subject to a surcharge
- **Phase X** – water used in excess of 50% conservation target subject to a surcharge

3.3.1 Recycled Water

There are currently three wastewater treatment plants in the study area described in the UWMP: Lancaster Water Reclamation Plant (LWRP), Palmdale Water Reclamation Plant (PWRP), and Rosamond Wastewater Treatment Plant (RWWTP). All three treatment plants treat their wastewater to secondary treated recycled water. LWRP also treats a small percentage of its effluent to a tertiary level.

On-going construction at each of the three treatment plants will increase the treated recycled water for the region. Distribution of the recycled water in the region will be accomplished through the AV Backbone. The first phase of the AV Backbone was completed in 2009 in the City of Lancaster with future phases remaining to be constructed. At this time the use of recycled water is contingent upon the completion of the AV Backbone system and establishing a recycled water purveyor for the region.

3.3.2 New Water Supply

In order to acquire sufficient water supplies for future demands, District 40 has established with AVEK a New Water Supply (Developer Fee) for new developments, which provides a method to acquire additional imported water supplies. The method creates a coordination effort between the developer, the District, and AVEK. The developer and the District work together to determine the volume of new water supply needed, which the developer then pays AVEK for to receive a letter of commitment to the District for the new water supply. AVEK then designates this new water supply to the District for the developer over and above the District's current allocation of supplies. In the case of Avanti North, the developer has acquired its own supply of water from the Nickel Family, LLC that is discussed further in Section 4.1 of this report.

3.3.3 Water Supply During Dry Years

Table 8 shows the water supply projections under single and multiple dry year scenarios from the 2010 Integrated Regional Urban Water Management Plan for the Antelope Valley.

Table 8: District 40 Average Water Year, Single Dry Water Year, and Multi-Dry Water Year Assessment

		2015	2020	2025	2030	2035
Demand		91,900	96,500	108,000	119,400	130,800
Average Water Year	Existing Supply	84,200	84,200	84,200	84,200	84,200
	GW Banking	0	0	0	0	0
	New Supply	2,300	4,100	12,900	21,600	30,300
	RW	5,400	8,200	10,900	13,600	16,300
	Total Supply	91,900	96,500	108,000	119,400	130,800
Single Dry Water Year	Existing Supply	31,400	32,400	33,400	34,400	34,400
	GW Banking	54,800	55,300	61,500	67,400	74,500
	New Supply	300	600	2,200	4,000	5,600
	RW	5,400	8,200	10,900	13,600	16,300
	Total Supply	91,900	96,500	108,000	119,400	130,800
Multi-Dry Water Year	Existing Supply	58,800	58,800	59,900	59,900	59,900
	GW Banking	26,400	27,100	29,500	32,900	36,300
	New Supply	1,300	2,400	7,700	13,000	18,200
	RW	5,400	8,200	10,900	13,600	16,400
	Total Supply	91,900	96,500	108,000	119,400	130,800

Note: Data taken from 2010 Integrated Regional Urban Water Management Plan for the Antelope Valley, Tables 7-1, 7-2, and 7-3.

3.4 UWMP Findings – Summary

The District has two primary supply sources: imported water purchased from AVEK and locally drawn groundwater from the Antelope Valley Groundwater Basin. Due to an overdraft condition of the Antelope Valley Groundwater Basin over the past 50 years it is predicted that groundwater pumping will be limited through adjudication. There is ongoing litigation that may reduce groundwater supply through adjudication,

which would affect the values listed in Table 6. District 40 has implemented the Aquifer Storage and Recovery Program to replenish the aquifer and store water for future use during drought years. A Phased Water Conservation plan is also in place during drought years to reduce demand, with recycled water being utilized throughout the District to augment supply. Through the use of Nickel Water acquired by contract for Avanti North, and the use of the described program measures, adequate water supply is available.

4 Water Supply Entitlements, Rights, & Service Contracts

Law

10910. (d) (1) The assessment required by this section shall include an identification of any existing water supply entitlements, water rights, or water service contracts relevant to the identified water supply for the proposed project, and a description of the quantities of water received in prior years by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), under the existing water supply entitlements, water rights, or water service contracts.

(2) An identification of existing water supply entitlements, water rights, or water service contracts held by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), shall be demonstrated by providing information related to all of the following: (A) Written contracts or other proof of entitlement to an identified water supply.

(B) Copies of a capital outlay program for financing the delivery of a water supply that has been adopted by the public water system.

(C) Federal, state, and local permits for construction of necessary infrastructure associated with delivering the water supply.

(D) Any necessary regulatory approvals that are required in order to be able to convey or deliver the water supply.

In 2010 the Los Angeles Waterworks District 40 was estimated to have received 46,800 AF of treated supply from various sources. Projected quantities by entitlement are shown in Table 6 of this report. A description of the primary and potential supply sources is included as follows:

- *Imported Water* – purchased from the Antelope Valley East-Kern Water Agency (AVEK)
- *Groundwater* – the District operates production wells with supply coming from the Antelope Valley Groundwater Basin, a subbasin to the South Lahontan Hydrologic Region Basin
- *Recycled Water* – the District does not currently serve recycled water for irrigation purposes, but is projected to begin in 2015

The Avanti North developer has also been able to ascertain its own independent water supply beyond District 40's supply. This independent supply of water is discussed in Section 4.1.

4.1 Nickel Contract Water

CV Communities has been proactive in acquiring its own reliable water supply that will be transmitted through AVEK that will ultimately be supplied to LA County Waterworks District 40 for use by Avanti North. This water supply is a portion of what is more commonly referred to as "Nickel Water." The Nickel Water is a right established by contract between the Nickel Family, LLC and the Kern County Water Agency (KCWA), wherein KCWA guarantees delivery of ten thousand acre-feet of water per year (10,000 AFY) from any sources available to KCWA to the Nickel Family, LLC at the State Water project aqueduct in perpetuity. The Nickel Water is considered to be a highly reliable water source. CV Communities has acquired a long-term contract with the Nickel Family, LLC for the supply of 1,700 AFY of water for approximately 65 years. The 620 AFY demand of Avanti North is approximately 36% of the available 1,700 AFY supply of water from the Nickel Family, LLC to CV Communities. This water supply will eliminate the need for District 40 to provide water through its own supply of imported water and groundwater.

4.2 Imported Water

LACWD District 40 purchases imported water from Antelope Valley East-Kern (AVEK) Water Agency's entitlement to State Water Project (SWP) delivered to the Antelope Valley. The Antelope Valley began to

receive water deliveries from the State Water Project (SWP) in 1972. The entitlements for the SWP delivers to the valley a total of 158,000 AF, nearly 90% of which is held by AVEK with the remaining supply being distributed between the Palmdale Water District (PWD) and the Little Rock Creek Irrigation District (LCID). AVEK deliveries have yet to approach the quantity of the full entitlement. In 1981 the delivery peaked at approximately 79,400 AF. Currently water customers of AVEK demand approximately 75,000 AF per year. State Water Project facilities still need to be completed to enable AVEK to receive its full entitlement.

Supply from the SWP fluctuates on a yearly basis, and can be reduced in dry years. The current drought has caused agencies to receive 0%-10% allocation of State Water Project water during certain periods. To firm up the water supply during dry years, the District purchases imported water from AVEK for the operation of the Aquifer Storage and Recovery (ASR) program. The program enables the banking of surplus imported water through treatment and injection into the groundwater basin. Then, during severe dry years, the surplus can be drawn from to meet demands.

4.3 Groundwater

LACWD District 40 extracts groundwater from the Antelope Valley Groundwater Basin. The groundwater basin has served the Antelope Valley as a key source of agricultural water. Groundwater extraction from 1926 to 1972 resulted in overdraft of the aquifer. As a result, management of the groundwater pumping rates has been instituted to bring extraction to the safe yield of the basin.

4.4 Recycled Water

The use of recycled water is currently limited to irrigation on farmland belonging to the Los Angeles County Department of Airports property. District 40 identified in the 2010 UWMP that by 2015 there is expected to be a reliable supply of recycled water for use. Exact numbers were not made available, so projected numbers from the UWMP were used. Three water reclamation plants are currently operating in the region. The three reclamation plants treat their wastewater to secondary treated recycled water, with a small percentage from one of them treating to tertiary levels. Expansion of the tertiary treatment at each of the plants is on-going, creating additional irrigation water and groundwater recharge supply. The first phase of the reclaimed water distribution system was completed in 2009 in the City of Lancaster with future phases remaining to be constructed.

4.5 Summary

The Antelope Valley Groundwater Basin is in a state of overdraft. As a result, groundwater management is being used to protect from further overdraft. District 40 is aware of the current status of the groundwater basin and plans to limit groundwater pumping to adjudication pumping capacities, while also implementing an Aquifer Storage and Recovery program. As District 40 is not a State Water Project contractor it cannot obtain additional Table A entitlement. The result of the limitation on groundwater pumping and ability to obtain SWP entitlement leads the District to meet the majority of its future demands from water transfers/exchanges and the use of recycled water. Thus, LACWD District 40 plans to develop the following facilities and agreements necessary to meet future water demands:

- Aquifer Storage and Recovery (ASR)
- New Water Supply (Developer Fees)
- Recycled Water

This water supply assessment estimates the water demand for Avanti North to be 620 AF, which represents 0.7% of the total water supply projected in 2015 for District 40. Projected water supplies over the next 20 years have been determined to exceed the projected water demands, including during dry years, even when including Avanti North. This should be considered in conjunction with the fact that Avanti North has its own supply of reliable water beyond that of District 40's supply.

5 Groundwater

Law

10910. (f) If a water supply for a proposed project includes groundwater, the following additional information shall be included in the water supply assessment:

(1) A review of any information contained in the urban water management plan relevant to the identified water supply for the proposed project.

(2) A description of any groundwater basin or basins from which the proposed project will be supplied. For those basins for which a court or the board has adjudicated the rights to pump groundwater, a copy of the order or decree adopted by the court or the board and a description of the amount of groundwater the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), has the legal right to pump under the order or decree. For basins that have not been adjudicated, information as to whether the department has identified the basin or basins as over drafted or has projected that the basin will become over drafted if present management conditions continue, in the most current bulletin of the department that characterizes the condition of the groundwater basin, and a detailed description by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), of the efforts being undertaken in the basin or basins to eliminate the long-term overdraft condition.

(3) A detailed description and analysis of the amount and location of groundwater pumped by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), for the past five years from any groundwater basin from which the proposed project will be supplied. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

(4) A detailed description and analysis of the amount and location of groundwater that is projected to be pumped by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), from any basin from which the proposed project will be supplied. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

(5) An analysis of the sufficiency of the groundwater from the basin or basins from which the proposed project will be supplied to meet the projected water demand associated with the proposed project. A water supply assessment shall not be required to include the information required by this paragraph if the public water system determines, as part of the review required by paragraph (1), that the sufficiency of groundwater necessary to meet the initial and projected water demand associated with the project was addressed in the description and analysis required by paragraph (4) of subdivision (b) of Section 10631.

5.1 Groundwater Basin Description

LACWD District 40 extracts groundwater from the Antelope Valley Groundwater Basin. The basin is a part of the South Lahontan Hydrologic Region. Two main aquifers, a lower and an upper aquifer, make up the Antelope Valley Groundwater Basin. The groundwater basin is bounded by the Garlock and San Andreas

Fault zones, and is recharged from the runoff of the local mountains. Most recharge occurs at the foot of the mountains and hills by percolation through the head of the alluvial fan systems.

In the past, the groundwater basin has served as the production source for much of the agricultural operation in the Antelope Valley area. Quantities of water pumped were reduced from a maximum of 400,000 acre-feet per year (AF) in 1950, to 53,000 AF in 1983, due to reduced agriculture and SWP deliveries. In 1992, urban development brought an increase in groundwater pumping to 92,000 AF to meet the District 40 demands when SWP supplies were reduced. Recent court rulings have determined that the safe yield of the basin is 110,000 AF, of which District 40 has entitlement claim for over 32,000 AF; however, the adjudication process has caused District 40 to split its entitlement claim of the groundwater basin with several other organizations. While the final settlements have not yet been reached, it is estimated that District 40 will have a groundwater pumping capacity of 23,200 AF as shown in Table 6 of this report.

LACWD District 40 has withdrawn groundwater from 2006 through 2009 in the following amounts:

Table 9: District 40 Past Groundwater Production

Year	Production (AF)
2005	19,769
2006	12,371
2007	19,523
2008	24,901
2009	18,265

Based on anticipated adjudication of pumping rates, the LACWD plans to limit its groundwater production to 23,200 AF. As shown in Table 5, the maximum production is anticipated to first take place in 2015.

6 Conclusion

1. The Los Angeles County Waterworks Districts (LACWD), District 40 has been identified as the public water distributor for Avanti North, and
2. Water demand for Avanti North has been planned for as a portion of a previous project name, Lancaster Capital (now Avanti North and Avanti South of similar size), for a demand of 2,100 AF/Yr in the 2010 Integrated Regional Urban Water Management Plan for the Antelope Valley, and
3. The calculated water demand for Avanti North is 620 AF/Yr, 30% of the planned demand in the 2010 IRUWMP under previous project name Lancaster Capital, and
4. The calculated water demand for Avanti North (620 AF/Yr) is approximately 36% of the Nickel Water supply of 1,700 AF/Yr, and
5. The Los Angeles County Waterworks District 40 delivers water from the following sources:
 - Imported Water – through additional supply from the Antelope Valley East-Kern (AVEK) Water Agency
 - Groundwater – from the Antelope Valley Groundwater Basin
 - Recycled Water – through the expansion of tertiary treatment facilities and further completion of the AV Backbone distribution system
6. CV Communities has purchased its own highly reliable water supply from Nickel Family, LLC, which is then provided to District 40 for use by Avanti North, thus eliminating demand on District 40's water sources.

Through the use of the described programs and measures implemented by District 40 to reduce water demand and increase water supply it has been determined that sufficient water supplies are available to support the Avanti North project by CV Communities.

7 References

- *2010 Integrated Regional Urban Water Management Plan for the Antelope Valley*, dated June 2011
- California Department of Water Resources, 2004. *Bulletin 118, Antelope Valley Groundwater Basin*

LOS ANGELES COUNTY WATERWORKS DISTRICT NO. 40

REQUIRED WATER SUPPLY ASSESSMENT (WSA) (SB 610)

Water Code §10910 *et seq.***Notice of Determination**

Lead Agency

Applicant's Name and Address

City of Lancaster
 Community Development
 44933 North Fern Avenue
 Lancaster, CA 93534

same**Project Information** (Check all that apply)Project Title: Avanti North (previously Lancaster Capital)

- ☐ Residential: No of dwelling units: 758
- ☐ Shopping center or business: _____ employees and/or _____ ft² of floor space
- ☐ Commercial office: _____ employees and/or _____ ft² of floor space
- ☐ Hotel or motel: No. of rooms _____
- ☐ Industrial, manufacturing, or processing: _____ acres, _____ employees, and _____ ft² of floor space.
- ☐ Mixed use (check and complete all above that apply)
- ☐ Other: Park and Detention Basin (22.5 acres)
- ☐ Number of existing service connections 0

Is this a project as defined by Water Code § 10912 Yes / No**Water Supply Assessment (WSA)** (see supporting documents)Date when request for water supply assessment was received June 26, 2015

- ☐ The projected water demand for the project was included in Los Angeles County Waterworks District No. 40 most recently adopted Urban Water Management Plan dated June 2011.
- ☐ A sufficient water supply is available for the project. The total water supplies available to Los Angeles County Waterworks District No. 40 during normal, single-dry, and multiple-dry years with a 20-year projection will meet the projected water demand of the project in addition to the demand of existing and other planned future uses, including, but not limited to, agricultural and manufacturing uses.
- ☐ A portion of the required water supply will be provided by projected water supplies.
- ☐ A sufficient water supply is not available for the project. [Plan for acquiring and developing sufficient water supply attached. Water Code § 10911(a)]

The foregoing determination is based on the following Water Supply Assessment Information and supporting information in the records of Los Angeles County Waterworks District No. 40.

Assistant Deputy Director

Signature

Title

Date